



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1459
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,895	10/19/2001	Christian Gheorghe	289476.124 US1	8307
28089	7590	10/25/2005		
WILMER CUTLER PICKERING HALE AND DORR LLP				
399 PARK AVENUE				
NEW YORK, NY 10022				
			EXAMINER	
			HAMZA, FARUK	
ART UNIT		PAPER NUMBER		
2155				

DATE MAILED: 10/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/032,895

Applicant(s)

GHEORGHE ET AL.

Examiner

Faruk Hamza

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 4, 5, 26, 34, 53 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1. ☐ Certified copies of the priority documents have been received.
 - 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
- _____ Paper No(s)/Mail Date 01/31/02.

- 4) ☐ Interview Summary (PTO-413)
- _____ Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. This action is responsive to the amendment filed on August 10, 2005. Claims 19-20 and 23-54 have been amended. Claims 1-54 are now pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 1-3, 6-11, 14-25, 27-33, 35-42, 45-52 are rejected under 35 U.S.C. 102(e) as being anticipated by Oliver et al. (U.S. Patent Number 6,845,374) hereinafter referred as Oliver.

Oliver teaches the invention as claimed including network system provides a real-time adaptive recommendation set of documents with a high statistical measure of relevancy to the requestor device (See abstract).

As to claim 1, Oliver teaches a recommendation system for delivering a list of recommendations to a requester system over a computer network, the recommendation system comprising:

a plurality of producer modules in communication with the requester system, each of the plurality of producer modules receiving a request for recommendations from the requester system and producing a list of initial recommendations in response thereto, each of the recommendations in a list of initial recommendations including a confidence level and a producer identifier (Fig. 1A; Column 4, lines 5-21, Oliver discloses plurality of producer modules ; and

a recommendation engine comprising:

a weighting module modifying each of the confidence levels in a given list of initial recommendations based on a weighting value associated with the

producer module that produced the given list of initial recommendations (Column 4, lines 32-36, Oliver discloses weighting module);

a recommendation module selecting one or more of the recommendations from the lists of initial recommendations based on the confidence levels of the recommendations to produce a list of survived recommendations that are transmitted to the recommender system (Column 4, lines 37-47, Oliver discloses recommendation module); and

an adjustment module adjusting the weighting values associated with each of the producer modules based on information from the requester system related to the list of survived recommendations transmitted to the requester system (Column 4, lines 53-60, Oliver discloses adjustment module).

As to claim 2, Oliver teaches the recommendation system of claim 1, wherein the recommendation module further comprises:

an assembler module combining the lists of initial recommendations into a combined list of recommendations (Column 4, lines 10-11);

a sorting module sorting the recommendations in the combined list of recommendations according to the confidence levels of each of the recommendations in the combined list of recommendations to produce a sorted list of recommendations (Column 4, lines 53-57); and

a selection module selecting one or more survived recommendations from the sorted list of recommendations to produce the list of survived recommendations (Column 4, lines 48-53).

As to claim 3, Oliver teaches the recommendation system of claim 2, wherein the selection module:

selects a first predetermined number N of recommendations from the sorted list of recommendations (Column 5, lines 60-67);

selects a second predetermined number M of recommendations from the first predetermined number N of recommendations, wherein the likelihood of a given one of the M recommendations being selected from the first predetermined number N of recommendations is related to the confidence level of the given one of the M recommendation (Column 6, 40-45); and

selects the one or more survived recommendations from the second predetermined number of initial recommendations (Fig. 9; 194).

As to claim 6, Oliver teaches the recommendation system of claim 1, wherein the weighting module modifies each of the confidence levels in a given list of initial recommendations by multiplying each of the confidence levels in a given list of initial recommendations by the weighting value associated with the producer module that produced the given list of initial recommendations (Column 4, lines 32-36).

As to claim 7, Oliver teaches the recommendation system of claim 1, wherein each of the recommendations in a list of initial recommendations also includes an object identifier (Column 1, lines 18-30).

As to claim 8, Oliver teaches the recommendation system of claim 1, wherein at least one of the recommendations in a list of initial recommendations also includes a request identifier that identifies the request for recommendations from the requester system (Column 1, lines 18-30).

As to claim 9, Oliver teaches the recommendation system of claim 1, wherein at least one of the recommendations in one of the lists of initial recommendations also includes a session identifier that identifies a session on the requestor system (Column 1, lines 18-30).

As to claim 10, Oliver teaches the recommendation system of claim 1, wherein at least one of the recommendations in one of the lists of initial recommendations also includes a recommendation identifier that indicates the list of initial recommendations of which the recommendation was a part (Column 4, lines 32-36).

As to claim 11, Oliver teaches the recommendation system of claim 1, wherein at least one of the recommendations in one of the lists of initial recommendations also includes a uniform resource locator (URL) (Column 1, lines 18-30).

As to claim 14, Oliver teaches the recommendation system of claim 12, wherein at least one of the recommendations in one of the lists of initial recommendations also includes an image (Fig. 4; 138).

As to claim 15, Oliver teaches the recommendation system of claim 1, wherein the request includes a requester agent (Column 3, lines 61-65).

As to claim 16, Oliver teaches the recommendation system of claim 11, wherein the request includes a universal 25 resource locator key (URL Key) (Column 1, lines 18-30).

As to claim 17, Oliver teaches the recommendation system of claim 1, wherein the request includes a Site Identifier (site ID) (Column 1, lines 18-30).

As to claim 18, Oliver teaches the recommendation system of claim 1, wherein the request includes a tracking identification attribute (Track ID) (Column 1, lines 18-30).

As to claim 19, Oliver teaches the recommendation system of claim 18, wherein the Track ID is a session identifier (Column 1, lines 18-30).

As to claim 20, Oliver teaches the recommendation system of claim 18, wherein the Track ID is a user identifier (Column 1, lines 18-30).

As to claim 21, Oliver teaches the recommendation system of claim 1, wherein the request includes a request number (RecCount) indicating a number of request to be transmitted to the requester system (Column 1, lines 18-30).

As to claim 22, Oliver teaches a relevant object determination system for delivering relevant objects over a computer network to a requester system having one or more users in contact therewith, comprising:

a first producer module and a second producer module, each of the first and second producer modules receiving a request for relevant recommendations from the requester system, the first producer module producing a first list of recommendations in response to the request for relevant recommendations and the second producer module producing a second list of recommendations in response to the request for relevant recommendations, each recommendation including an object identifier, a confidence level, and a producer identifier (Fig. 1A; Column 4, lines 5-21, Oliver discloses producer modules); and

a recommendation engine comprising:

a weighting module modifying the confidence level in each recommendation in the first list of recommendations based on a first weighting value and modifying the confidence level in each recommendation in the second list of recommendations based on a second weighting value (Column 4, lines 32-36, Oliver discloses weighting module);

a recommendation module, selecting a predetermined number of the recommendations, the recommendation module delivering to the requester system objects identified by the object identifiers in the predetermined number of recommendations and the producer identifiers in the predetermined number of recommendations (Column 4, lines 37-47, Oliver discloses recommendation module); and

an adjustment module adjusting the first weighting value and the second weighting value based on inputs from the requester system indicative of reactions of the one or more users to objects sent from the recommendation module to the requester system (Column 4, lines 53-60, Oliver discloses adjustment module).

As to claim 23, Oliver teaches the relevant object determination system of claim 20, wherein the recommendation module further comprises:

an assembler module combining the first list of recommendations and the second list of recommendations into a combined list of recommendations (Column 4, lines 10-11);

a sorting module sorting the combined list of recommendations to produce a sorted list of recommendations (Column 4, lines 53-57); and

a selection module selecting from the sorted list of recommendations the predetermined number of recommendations (Column 4, lines 48-53).

As to claim 24, Oliver teaches the relevant object determination system of claim 23, wherein the sorting module sorts the recommendations in the combined list of recommendations according to confidence levels (Column 4, lines 61-67; Column 5, lines 1-3).

As to claim 25, Oliver teaches the relevant object determination system of claim 24, wherein the selection module first selects N recommendations from the sorted list of recommendations and then selects the predetermined number of recommendations from the N selected recommendations, wherein the likelihood of a given one of the recommendations of the predetermined number of recommendations being selected from the N recommendations is related to the confidence level of the given one of the recommendations (Column 5, lines 60-67).

As to claim 27, Oliver teaches a method of adaptively weighing producer modules in a recommendation system employing a plurality of producer modules, each producer module having a weighting value associated therewith, the method comprising the steps of:

receiving one or more recommendations from each of the plurality of producer modules executing on one or more processing units, each of the received recommendation including a producer identifier indicating which producer module produced the received recommendation (Column 4 lines 61-67; column 5, lines 1-3, Oliver discloses receiving recommendations different modules);

transmitting a plurality of survived recommendations to a requester system executing on one or more processing units, each of the survived recommendations being selected from the received recommendations (Column 5, lines 1-3, Oliver discloses transmitting recommendations);

receiving information from the requester system related to the plurality of survived recommendations transmitted to the requester system (Column 1, lines 51-55, Oliver discloses receiving information from requester); and

modifying each of the weighting values based on the information received from the requester system (Fig. 7, Oliver discloses modifying weighting values).

As to claim 28, Oliver teaches the method of claim 27, wherein the information received from the requester system includes a plurality of user

reaction values, wherein each of the plurality of user reaction values is associated with a different one of the plurality of survived recommendations transmitted to the requester system (Column 1, lines 51-55).

As to claim 29, Oliver teaches the method of claim 28, wherein each user reaction value is indicative of a positive user reaction to the recommendation to which the user reaction value is associated (Column 1, lines 51-55).

As to claim 30, Oliver teaches the method of claim 28, wherein each user reaction value is indicative of positive and negative user reactions to the recommendation to which the user reaction value is associated (Column 1, lines 51-55).

As to claim 31, Oliver teaches a method of producing a list of recommendations using a plurality of producer modules, each producer module having associated therewith a weighting value, the method comprising the steps of:

receiving a request for recommendations from a requester system executing on one or more processing units (Fig. 1A, Oliver discloses receiving request for recommendations);

transmitting the request to a plurality of producer modules executing on one or more processing units (Fig. 12, Oliver discloses transmitting the request to producer modules);

receiving a list of initial recommendations from each of the producer modules, every recommendation in a list of initial recommendations having a confidence level and a producer identifier (Column 4 lines 61-67; column 5, lines 1-3, Oliver discloses receiving initial recommendations);

modifying each of the confidence levels in each of the lists of initial recommendations based on the weighting value associated with the producer module that produced the list of initial recommendations to produce a list of modified recommendations (Fig. 7, Oliver discloses modifying confidence levels);

selecting a predetermined number of survived recommendations from the list of modified recommendations (Fig. 8; 184, Oliver discloses selecting recommendations);

transmitting the predetermined number of survived recommendations to the requester system (Column 5, lines 1-3, Oliver discloses transmitting recommendations);

receiving feedback information from the requester system related to the predetermined number of survived recommendations transmitted to the requester system (Column 1, lines 51-55, Oliver discloses receiving feedback); and

modifying each of the weighting values based on the feedback information received from the requester system (Fig. 7, Oliver discloses modifying weighting values).

As to claim 32, Olive teaches the method of claim 31, wherein the step of selecting a predetermined number of survived recommendations comprises the steps of:

sorting the list of modified recommendations according to the confidence levels of each of the recommendations in the list of modified recommendations to produce a sorted list of recommendations (Column 4, lines 53-57); and

choosing the selected predetermined number of survived recommendations from the sorted list of recommendations (Fig. 8; 184).

As to claim 33, Oliver teaches the method of claim 32, wherein step of choosing the selected predetermined number comprises the steps of:

selecting a first predetermined number N of recommendations from the sorted list of recommendations (Column 5, lines 60-67);

selecting a second predetermined number M of recommendations from the first predetermined number N of recommendations, wherein the likelihood of a given one of the M recommendations from the first predetermined number N of recommendations being selected as a second predetermined number M of

recommendations is related to the confidence level of the given recommendation (Column 6, lines 40-45); and

choosing the selected predetermined number of survived recommendations from the second predetermined number M of initial recommendations (Fig. 9; 194).

As to claim 35, Oliver teaches the method of claim 31, wherein the step of modifying each of the confidence levels comprises multiplying each of the confidence levels in a given list of initial recommendations by the weighting value associated with the producer module that produced the given list of initial recommendations (Column 5, lines 48-53).

As to claim 36, Oliver teaches the method of claim 31, wherein each of the recommendations in a list of initial recommendations also includes an object identifier (Column 1, lines 18-30).

As to claim 37, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes a request identifier that identifies the request for recommendations from the requester system (Column 1, lines 18-30).

As to claim 38, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes a session identifier that identifies the session on the requestor system that motivated the initial request (Column 1, lines 18-30).

As to claim 39, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes a recommendation identifier that indicates the list of initial recommendations of which the recommendation was a part (Column 4, lines 32-36).

As to claim 40, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes a uniform resource locator (URL) (Column 1, lines 18-30).

As to claim 41, Oliver teaches the method of claim 40, wherein the at least one of the recommendations in a list of initial recommendations also includes a uniform resource locator key (URL key) related to the URL. (Column 1, lines 18-30)

As to claim 42, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes the address of a web page (Column 1, lines 18-30).

As to claim 45, Oliver teaches the method of claim 31, wherein at least one of the recommendations in a list of initial recommendations also includes an image (Fig. 4, 138).

As to claim 46, Olive teaches the method of claim 31, wherein the request includes a requester agent (Column 3, lines 61-65).

As to claim 47, Oliver teaches the method of claim 29, wherein the request includes a standard universal resource identifier (Column 1, lines 18-30).

As to claim 48, Oliver teaches the method of claim 29, wherein the request includes a Site Identifier (site ID) (Column 1, lines 18-30).

As to claim 49, Oliver teaches the method of claim 29, wherein the request, includes a tracking identification attribute (Track ID) (Column 1, lines 18-30).

As to claim 50, Oliver teaches the method of claim 29, wherein the Track ID is a session identifier (Column 1, lines 18-30).

As to claim 51, Oliver teaches the method of claim 29, wherein the Track ID is a user identifier (Column 1, lines 18-30).

As to claim 52, Oliver teaches the method of claim 29, wherein the request includes a request number (RecCount) indicating the predetermined number of survived recommendations to be transmitted to the requester system (Column 1, lines 18-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 12, 13, 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oliver et al. (U.S. Patent Number 6,845,374) as applied above, and further in view of Shtivelman (U.S. Patent Number 6,346,952).

Oliver teaches the invention substantially as claimed including network system provides a real-time adaptive recommendation set of documents with a high statistical measure of relevancy to the requestor device (See abstract).

As to claim 12, Oliver teaches the recommendation system of claim 1, wherein at least one of the recommendations in one of the lists of initial recommendations (Column 4, lines 30-31).

Oliver does not explicitly teach claim limitation of including title of a web page.

However, Shitvelman teaches including title of we page (Column 20, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliver by adding the functionality to include title of a web page. One would be motivated to do so for greater ease and convenience.

As to claim 13, Oliver teaches the recommendation system of claim 12, wherein at least one of the recommendations in one of the list of initial recommendations (Column 4, lines 30-31).

Oliver does not explicitly teach claim limitation of including summery of the web page.

However, Shitvelman teaches summery of we page (Column 20, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliver by adding the functionality to include summery of a web page. One would be motivated to do so for greater ease and convenience.

As to claim 43, Oliver teaches the method of claim 42, wherein the at least one of the recommendations in a list of initial recommendations (Column 4, lines 30-31).

Oliver does not explicitly teach claim limitation of including title of a web page.

However, Shitvelman teaches including title of we page (Column 20, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliver by adding the functionality to include title of a web page. One would be motivated to do so for greater ease and convenience.

As to claim 44, Oliver teaches the method of claim 43, wherein the at least one of the recommendations in a list of initial recommendations (Column 4, lines 30-31).

Oliver does not explicitly teach claim limitation of including summary of the web page.

However, Shitvelman teaches summary of we page (Column 20, lines 7-13).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oliver by adding the functionality to include summary of a web page. One would be motivated to do so for greater ease and convenience.

Allowable Subject Matter

4. Claims 4,5,26,34,53 and 54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that; A) Oliver does not teach plurality of producer modules; B) Oliver does not teach weighting module; C) Oliver does not teach recommendation module; D) Oliver does not teach adjustment module.

In response to A) Oliver teaches plurality of producer modules as shown in Fig. 2 (Assembly module 10, Preprocessing module 30, Clustering module 40 etc.). Major modules like Assembly, Pre-processing, Clustering, Keyword Extraction, Filtration, Recommendation and presentation generate recommendations for requester (Column 4, lines 5-60). Therefore Oliver's teaching of these modules meets the scope of the claimed limitation "plurality of producer modules".

In response to B) Oliver teaches weighting modules as shown in Fig. 2 (Clustering module, 40). Clustering modules groups documents based on high degree (Column 4, lines 5-60). Therefore Oliver's teaching of Clustering module meets the scope of the claimed limitation "weighting module".

In response to C) Oliver teaches recommendation module as shown in Fig. 2 (Recommendation Module, 80). Recommendation Module ranks the eligible documents by relevance score (Column 4, lines 5-60). Therefore Oliver's teaching of Recommendation module meets the scope of the claimed limitation "Recommendation Module".

In response to D) Oliver teaches adjustment module as shown in Fig. 2 (Presentation Module, 90). Presentation module personalizes the presentation format of the recommendations (Column 4, lines 5-60). Therefore Oliver's teaching of Presentation Module meets the scope of the claimed limitation "Adjustment Module".

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is

filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faruk Hamza whose telephone number is 571-272-7969. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached at 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 886-217-9197 (toll -free).

Faruk Hamza

Patent Examiner

Group Art Unite 2155

A handwritten signature in black ink, appearing to read 'Saleh Najjar', written in a cursive style.

SALEH NAJJAR
SUPERVISORY PATENT EXAMINER